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'A life of living death': the experiences of people living with chronic low back pain in rural Nigeria

Abstract

Purpose

This study explored the experiences of people living with Non-specific chronic low back pain (CLBP) in a rural Nigerian community.

Method

Qualitative in-depth semi-structured face-to-face interviews were conducted with purposively sampled participants until data saturation. Questions explored back pain beliefs, coping/management strategies and daily activities. Thematic analysis of transcripts was performed using the Framework approach.

Results

Themes showed that back pain beliefs were related to manual labour/deprivation, infection/degeneration, spiritual/cultural beliefs and rural-urban divide. These beliefs impacted on gender roles, resulting into adaptive or maladaptive coping. Adaptive coping was facilitated by positive beliefs, such as not regarding CLBP as an illness, whereas viewing CLBP as illness stimulated maladaptive coping strategies. Spirituality was associated with both adaptive and maladaptive coping. Maladaptive coping strategies led to dissatisfaction with health care in this community.

Conclusions

CLBP-related disability in rural Nigeria is strongly influenced by beliefs that facilitate coping strategies that either enhance or inhibit recovery. Interventions should therefore target maladaptive beliefs while emphasizing behavioural modification.

Introduction

Non-specific chronic low back pain (CLBP) is pain/functional discomfort between the 12th rib and the gluteal cleft, with or without radiation to the legs ¹, lasting more than 12 weeks without a specific underlying pathology ². Eighty five percent of chronic low back pain is non-specific ³ having a prevalence of 32.9% in developed countries ⁴. CLBP is responsible for much pain and disability, imposing a considerable economic burden in these countries ². In Africa, CLBP is responsible for an even greater burden on the health and economy of individuals and countries ⁵. CLBP is highly prevalent (72%) in rural Nigeria ^{6,7} reaching a prevalence of 85% among rural farmers ⁸, a much higher figure than the 39% in urban Nigeria ⁸.

Fifty two percent of Nigerians are rural dwellers and 90% of these rely on peasant farming for their livelihood ⁹. Additionally most rural Nigerians earn less than US\$1.25 a day which compares unfavourably with urban dwellers who earn several times more ^{10,11} because of higher literacy rates and paid employment ^{12,13}. This socio-economic inequality is associated with differential access to infrastructure and amenities ⁹ increasing disability and poverty and further reinforcing inequality as part of a vicious cycle of deprivation ¹⁴. In Nigeria, medical education and health service management appears to support the location of tertiary and secondary health facilities in urban areas, which might be a contributory factor in widening inequality ¹⁵. Additionally, the rural patients' reliance on alternative practitioners, plus health professionals' unwillingness to travel to rural areas to treat patients may compound these problems ¹⁶⁻²⁰.

No research has examined the lived experience of people with CLBP in rural Nigeria or anywhere else in rural Africa. Four syntheses of sixty qualitative studies ²¹⁻²⁴ explored CLBP in mostly Caucasians in developed countries. Only three of these studies were conducted outside such countries; in Israel ²⁵, Iran ²⁶ and South Africa ²⁷. Feelings of distress and loss were a common finding across settings, whereas illness beliefs, treatment expectations and self-management practices differed ²¹⁻²⁴. Coping through spirituality was notable in South Africa though this may not reflect rural African patients' views as all the included patients were Caucasian females recruited through urban clinics ²⁷. Therefore, the aim of this study was to explore the experiences of people living with chronic low back pain (CLBP) in a rural Nigerian community.

Methods

Design

Qualitative in-depth semi-structured face-to-face individual interviews.

Ethical considerations

Ethical approval was obtained from King's College London (Ref: BDM/12/13-123) and University of Nigeria Teaching Hospital (Ref: UNTH/CSA/329/Vol.5).

Study setting

This study took place in Umuatugboma village in Akegbugwu, in Nkanu West local government area of Enugu State. This setting is a typical rural village that is accessible from Enugu city. The village is predominantly agrarian with most dwellers practising peasant or subsistent farming. Enugu is regarded as the oldest urban area in the Igbo speaking area of Southeast Nigeria ²⁸.

Participant recruitment

A village-wide announcement was utilised to invite interested potential participants with CLBP to meet at a local community centre. Forty six people attended and were given verbal and written information about the study and allowed 3 days to decide whether to participate in the study. Purposive sampling utilising socio-demographic factors such as age, gender and occupation to reflect a diversity of circumstances was used to select 35 participants. The participants were asked to return to the local community centre where informed consent was obtained via signature or thumb printing. They were asked to choose a convenient day and time to be interviewed and were subsequently interviewed in their homes.

Individuals resident in Umuatugboma village with chronic low back pain of apparent neuromusculoskeletal origin, aged between 30 and 69 years which are the ages most severely affected by CLBP in rural Nigeria ⁶, with pain lasting for more than 12 weeks ^{6,29} were selected. CLBP of neuromusculoskeletal origin was ascertained by the lead author (a qualified physiotherapist) asking potential participants questions based on an evidence based check list to rule out CLBP due to malignancy, spinal fracture, infection or cauda equina syndrome ³⁰⁻³². Diagnosing CLBP this way is congruent with the diagnostic triage recommendations by evidence based guidelines for the management of non-specific chronic low back pain ^{31,33-35}. People with impaired capacity to give informed consent or participate in the interview and pregnant women were excluded. Low back pain due to pregnancy is not regarded as non-specific ²⁹. Capacity to give informed consent or participate in the interview was confirmed by the participants or their families and subjective assessment of speech coherence by the lead author.

Procedure

The interview guide explored participants' experiences and understanding of back pain, their coping strategies, their appraisal of the perceived success of these strategies and expectations from treatment. The interview guide was informed by the Leventhal's self-regulatory and Health beliefs models ³⁶⁻³⁸. The interview guide had three sections. The first section assessed beliefs about CLBP, its impact and their coping strategies. The second section assessed participants' needs and expectations from treatment and the last section asked participants

about their daily activities. The guide was initially written in English and then translated into Igbo following a protocol for qualitative interviews ^{39,40}. This involved back-translation, consultation, collaboration and independent piloting among rural Nigerian dwellers. Appropriate modifications were then made to the Igbo and English versions (Appendix 1).

At the beginning of each interview, participants were requested to describe the location of their pain using a body chart. In-depth semi-structured face-to-face interviews were conducted individually in the native language (Igbo) with the interviewer (the lead author, a native Igbo speaker). Two participants who were proficient in Igbo and English preferred to respond in English. Interestingly, because Igbo is rarely spoken in its pure form, most participants included English words in their Igbo narrative. Interview questions were open ended and included probes to further clarify feelings, beliefs, attitudes and experiences. Preliminary analysis of an interview was done to note areas for further exploration before conducting a subsequent interview in an iterative process and each interview was audio-recorded. The average duration of each interview was one hour (ranged between 40 to 80 minutes). Data saturation was reached after 30 interviews when no new themes emerged. After the interviews, participants were given a visual analogue scale to describe their current pain intensity after which they were provided with refreshment and expenses for their time. Audio data were supplemented with pictures, field notes and a reflective diary. This enabled the researcher to reflexively examine her preconceptions and role as a researcher, and how these might influence responses and analysis.

Data management, analysis and trustworthiness

Data were managed and thematically analysed using the framework approach ^{41,42}. Interviews were transcribed verbatim in Igbo by the lead author (a native Igbo speaker and bilingual in English and Igbo). All interview transcripts were anonymized and given identification codes. The Igbo transcripts were then forward translated into English by the lead author. This was done with the awareness that qualitative data is better analyzed in the source language to minimize loss in translation ^{39,43}. Analysis of the English transcripts was a pragmatic decision to ensure that all stages in the analytical process could be validated by the rest of the research team who are native English speakers.

Steps were therefore taken to ensure that meaning was not lost in translation. After the forward translation of the Igbo transcripts to English, one interview transcript was selected at random (using computer generated numbers) and back translated from English to Igbo. An expert panel comprising clinicians, researchers and an

independent British resident Igbo speaker compared the original and translated versions of the transcript to ensure that content and meaning were retained. Furthermore, respondent validation was carried out with a randomly selected participant, in line with best practice ⁴³⁻⁴⁶. However, translation has negligible effects on qualitative analysis when conducted within the native language and culture of researchers ⁴⁵. Furthermore, the framework approach to data management ensures systematic, rigorous and transparent qualitative data analysis ^{42,47}.

English transcripts as well as pictures, field and reflective notes were entered into NVivo version 10, QSR international, Melbourne, Australia. Data management began with inductive coding which was descriptive and grounded in the data. A code book, with definitions of codes was developed and was used to organize the data. These steps were validated by the rest of the research team who compared the codes and their definitions with the interview transcripts, and ensured that the codes reflected the qualitative data. The organized data were then used to inductively develop analytical categories validated similarly by the research team. Another code book with definitions of the categories was developed and used to organize the data. These steps further ensured familiarization and immersion in the data in an iterative process. An independent researcher in Nigeria coded a randomly selected Igbo transcript to further validate the coding process.

The data, organized within the analytical categories, were then used to develop the initial thematic framework which was again validated by the rest of the research team. The data were indexed by applying the initial thematic framework to the rest of the data. These were summarized and displayed in the final framework matrices, in which each theme was represented in rows and columns. Each row corresponded to a participant's transcript and each column to each subtheme within a theme. Finally, there was abstraction and interpretation of data using the framework matrices to develop explanations which produced the final narrative. Interpretation of results was facilitated by the systematic generation of themes via the framework approach ^{41,42} and a practitioner-as-researcher model ⁴⁸ as the lead author's past experiences as a clinical Physiotherapist in this context might have enhanced meaning and understanding.

Results

Table 1: Socio-demographic characteristics of the participants

	Frequency	%
AGE (YEARS)		
30-39	8	26.7
40-49	11	36.7
50-59	4	13.3
60-69	7	23.3
SEX		
Male	15	50.0
Female	15	50.0
MAIN OCCUPATION		
Manual workers	14	46.7
Non-manual workers	3	10.0
Traders	7	23.3
Civil servants/retired civil servants	6	20
RELIGION (CHRISTIAN DENOMINATION)		
Protestant Pentecostal	18	60.0
Catholic	8	26.7
Methodist	3	10.0
Anglican	1	3.3
MARITAL STATUS		
Married	26	86.7
Widowed	3	10.0
Single	1	3.3
EDUCATIONAL LEVEL COMPLETED		
Primary	11	36.7
Tertiary	7	23.3
Secondary	6	20.0
None	6	20.0
LITERACY (ABILITY TO READ AND WRITE)		
Illiterate (inability to read and write)	13	43.3
English	9	30.0
English and Igbo	8	26.7
CO-MORBID CONDITIONS		
Hypertension	4	13.3
Diabetes	1	3.3
Knee osteoarthritis	1	3.3

All participants were peasant farmers on a full-time or part-time basis. Some participants were full time farmers whereas, other participants were either predominantly farmers and combined this with another part-time occupation or had a different full time occupation such as welding but did some part-time farming in addition. Manual workers included farmers, welders, mechanics/panel beaters, masons, butchers and furniture makers. Non-manual workers included a clergyman and barber (Table 1).

Table 2: Analytical themes

Themes	Social construction of back pain as a disease of hard labour and deprivation	CLBP impacts on the family and mental health	Coping strategies were driven by beliefs	The role of spirituality	Dissatisfaction with health care
Subthemes	Back pain is associated with the ageing process	Impact on gender roles	Showing weakness appears unacceptable	Spiritual beliefs represent causal explanations for back pain	Dissatisfaction with conventional health care
	Back pain had a seasonal presentation	A life of 'living death'	Drugs are the legitimate form of treatment	Spirit-body dualism	Dissatisfaction with available alternative health care
			Active lifestyle modification is only a preventive strategy	Pain acceptance and support through spirituality	Expectations still focused on 'cure'

Table 2 shows the 5 themes and 13 subthemes generated from the thematic analysis of data using the framework approach.

These themes, subthemes and the narrative emerged from the data organized within the following analytical categories: aggravating and relieving factors, causal beliefs, coping strategies, cultural and environmental factors, impact on life, living dead, perceived needs and expectations, responses, self-concept, self-management and medical management, social and gender roles, spiritual beliefs, understanding of health and illness, understanding of pain.

1. Social construction of back pain as a disease of hard labour and deprivation

The participants associated chronic back pain with hard labour and deprivation, which was thought to be inevitable for rural dwellers in Nigeria; and compared themselves unfavourably with urban dwellers.

'How will someone not have sickness? No good environment, no good food, nothing, nothing, no good drugs...you know in villages in this our country; we are in trouble due to suffering...you will be doing hard labour, but in the towns they are okay.... but in this village, a 30 year old has sagged... but in the towns, if you see an 80 year old you won't believe it, she is living fine...' (P2, Single female, aged 30 years, full time trader, Pentecostal Christian).

These adverse conditions were explained in terms of a combination of factors such as prolonged involvement in manually demanding jobs, lack of rest, child bearing and rearing, poverty, poor nutrition and lack of social

support. Poor environmental and socio-economic conditions, such as low paid jobs and stress and worry about the future, were believed to necessitate long working hours, to increase earnings in order to have a better standard of living.

‘...our pain is due to over working and lacking assistance...’ (P4, Married Male, aged 54 years, welder, Pentecostal Christian).

Participants therefore felt that a life without back pain was only achievable by changing their jobs to less manually-demanding occupations and improving their nutrition. However, the perceived helplessness of their socio-economic situation contributed to feelings of isolation, hopelessness and frustration.

‘...any time that I’m able to get money, and stop this job, and start a business, it would stop... also good food... Good food...good food cures sicknesses. ...I also need money...I need money’ (P19, Married male, aged 33 years, full time welder, Methodist).

The need to change their occupation was followed by the expectation that an alternative job should be provided by the government.

‘...Not having a better job when you should work...I am begging the government...a way that the government will bring to help us, because a lot of people are suffering from this pain...’ (P17, Married male, aged 46 years, full time welder, Catholic).

Participants felt improving their nutrition meant adopting a less-carbohydrate based diet with more protein, fruit and vegetables.

‘...what I need are all these fruits that give good health, because there are some foods we were told to reduce how much we eat. Like cassava, anything that has too much starchy food...’ (P16, widowed female, aged 40 years, full time teacher, Methodist).

This type of nutrition was perceived to be expensive and beyond their reach.

‘...fruits are too expensive here...because people in the villages sell all their fruits in the towns for money...so fruits are cheaper in the towns than in the villages....’ (P20, Married female, aged 35 years, full time civil servant (computer operator), Pentecostal Christian).

They therefore hoped that aid would be provided by the government to address these needs, without which they had no hope of recovery from their back pain.

'...I am begging the government... the way our health is being treated in this country isn't good...' (P14, Married male, aged 45 years, full time mechanic, part-time farmer).

A better nutrition could then sustain them in their 'new' less manually-demanding jobs.

'...that kind of food can now support the light jobs' (P3, married male, aged 42 years, full time Mason, Pentecostal Christian).

Back pain is associated with the ageing process

CLBP was perceived as a sign of normal ageing by the older participants but they had bleak expectations about the future as they grew older and became unable to sustain their livelihood in the perceived adverse conditions of the rural areas.

'...I don't agree that it is a serious ill health... it's due to the way we work and the fact that we are getting older' (P6, Married Male, aged 44 years, full time furniture maker/pastor, Pentecostal Christian).

Conversely, the younger participants associated CLBP with premature ageing, similarly related to rural habitation.

'...I am still a young woman...people of my mother's age...will stand for 30 minutes...but me, I won't be able to stand up for 30 minutes...' (P18, Married female, aged 38 years, full time trader, Pentecostal Christian).

The younger participants had catastrophic expectations about the future which they expected to be unbearable due to the perception that ageing would make them become completely incapacitated.

'...for me to start now to have back pain, when a person starts conceiving or starts having children, or starts getting old, you then know that the person may not be able to get up from sitting...' (P2, Single female, aged 30 years, full time trader, Pentecostal).

Back pain had a seasonal presentation

Participants associated CLBP with the tropical climate in Nigeria. CLBP was perceived to be worse during the rainy season and relieved during the dry season. The rainy season is when farming activities normally occur in rural Nigeria, which was associated with CLBP.

'...You know that as we are in the village like this, everything has a season, it gets worse during the rainy season. After doing hard labour...you would do morning farm work and then do the evening farm work...no rest...when work is reduced, pain is relieved like during the sunny weather...' (P2, Single female, aged 30 years, full time trader, Pentecostal).

Additionally, the rainy season is a period of flooding which some participants believed caused back pain.

'...some doctors said that it is rheumatism...caused by bad water that enters the body...because the skin has holes...especially during the rainy season...if I put my legs into muddy water...it makes the pain worse...' (P18, Married female, aged 38 years, full time trader, Pentecostal).

Some participants described this period as a time of reduced business activities and less financial profit, hence possibly a period of further deprivation and anxiety for them.

'...this rainy season contributed to our not going to the market regularly. If it is during the dry season, we go to the market almost every day...' (P7, Married female, 34 years, full time trader, Pentecostal).

2. CLBP impacts on the family and mental health

CLBP had a considerable impact on the family and mental health, characterized by clear culturally defined male and female gender roles.

Impact on gender roles

Women felt that having CLBP prevented them from fulfilling their community's socio-cultural expectation of conceiving and looking after children and providing physical and spiritual sustenance.

'...I feel very sad; I feel sad because I can no longer cook his (husband) food...' (P1, Married female, aged 69 years, Pentecostal);
'...like now if there is a church outing...I won't be able to...go and pray...' (P20, Married female, aged 35 years, full time civil servant-computer operator, Pentecostal).

Young married females, who had been trying unsuccessfully to conceive, felt reduced fertility to be a consequence of their CLBP.

'...we are looking for the fruit of the womb...I feel that CLBP is part of what is preventing it...' (P8, Married female, aged 47 years, voluntarily retired teacher, Pentecostal).

This was sometimes related to a symptom described as 'hotness' in the back.

'...where this has really made me sad is that it has not allowed me to get pregnant...because people say that back pain makes it difficult for people to get pregnant...because of the hotness...' (P18, Married female, aged 38 years, full time trader, Pentecostal).

Maintaining physical intimacy was viewed as a sign of masculinity in this rural community and was thought to be affected by CLBP.

'...and possibly the time you are supposed to relate with your wife, you will be complaining, I am tired. That is the core...the most...and...Yes, that is the most touching area...' (P15, Married male, aged 50 years, full time clergy/teacher, Pentecostal).

Family provision was viewed similarly and when men felt they were unable to achieve this because of their CLBP, they felt emasculated and frustrated.

'...It means that you are not able to do the work that supports your existence. With that you will see that there will be no money, there will be no food until I recover and start going to work...' (P3, Married male, aged 42 years, full time Mason, Pentecostal).

The inability to fulfill the male gender roles affected spousal and family relationships.

'...brings problems into the home...because the money isn't enough...' (P17, Married male, aged 46 years, full time welder, Catholic).

A life of 'living death'

Participants described their experience of CLBP within a rural Nigerian context as a life of 'living death' associated with unbroken misery and hopelessness. They felt that, although they knew what was causing their back pain, they were powerless to modify it. Some participants also felt that having back pain led to pain in other sites, which was understood as the disease spreading throughout their body.

This perspective led to feelings of hopelessness followed by feelings of severe depression, which participants described using the Igbo word for 'tiredness' as there is no word for depression in Igbo.

'...it is the feeling of tiredness, tiredness, tiredness. Sometimes I feel tired....then I will get very sad, very sad, very sad, when sometimes I don't get myself, I get very sad, very sad...' (P1, Married female, aged 69 years, Pentecostal); *'...it makes you....tired...you will be getting very tired. That tiredness is depression...' (P15, Married male, aged 50 years, full time clergy/teacher, Pentecostal, responded in English).*

For some participants, the word 'tiredness' signified that they were tired of continuing to live in this world.

'...everything will tire you....in short you are tired of living in this world...' (P15, Married male, aged 50 years, full time clergy/teacher, Pentecostal).

This led to few participants preferring actual death to this life of 'living death' which was particularly pronounced in people who became dependent as a result of having CLBP.

'...I am suffering severely ...rather than not being able to feed myself... rather than living a life without rest...living in death...let Him (God) take my life...' (P11, Widowed female, aged 67 years, full time farmer, Pentecostal).

3. Coping strategies were driven by beliefs

Some participants understood CLBP as something that had come to steal the very essence of their existence and adopted coping strategies that were belief-derived.

Showing weakness appears unacceptable

Some participants coped with their pain by 'escaping from the self' through increasing activity levels to avoid spending time alone thinking. Others coped by 'escaping from others' through withdrawal/seclusion. 'Escaping from the self' seemed stimulated by feelings of extreme distress.

'...when I'm alone, what I feel like doing is going out... It's not my thoughts; it's my ill health and my weeping. It comes into my head, I say to it...come let's go out...' (P11, Widowed female, aged 67 years, full time farmer, Pentecostal).

'Escaping from others' appeared to be provoked by shame and perceived negative perceptions.

'...because when they look at you, they start laughing at you...' (P9, Married male, aged 35 years, full time trader, Methodist).

'Escaping from others' also appeared to be derived from other people expressing doubts about their pain.

'...because when you tell people how it pains you, they will be telling you 'Is it possible, you that looks so good?...' (P2, Single female, aged 30 years, full time trader, Pentecostal).

Some participants coped by not disclosing their CLBP to people who were outsiders to them.

'...apart from my wife...I don't tell other people...' (P21, Married male, aged 45 years, full time panel beater/mechanic, Catholic).

Spiritual leaders with CLBP concealed it from their congregation because they believed this would hinder their faith and prevent their healing.

'...Ours is faith work...based on the fact that I am a clergyman; I don't want it to be exposed...as a pastor, I use my experience to encourage them but I don't tell them that I have back pain too...' (P15, Married male, aged 50 years, full time clergy/teacher, Pentecostal).

Other participants sought emotional support from members of their nuclear family.

'...My wife usually assists me...' (P14, Married male, aged 45 years, full time mechanic, part-time farmer, Catholic).

A few participants coped by seeking support from distant friends who were seen as more supportive than their extended family who they felt were 'enemies' because of their lack of support and mockery of them.

'...My siblings will start mocking me...it is not everywhere that I go... now the other village...I go there more often because they respect what I say...' (P9, Married male, aged 35 years, full time trader, Methodist).

Drugs are the legitimate form of treatment

Most participants depended on analgesic drugs to perform their normal activities. This was especially true for those who believed that their occupational duties caused and aggravated their CLBP.

'...Well as far as it is because of my job that I have my back pain...we go and take drugs...and continue doing our work...' (P17, Married male, aged 46 years, full time welder, Catholic).

Furthermore, it seemed a cultural norm in this community that diseases were legitimately treated and 'cured' through medication. Hence, many participants reported a constant struggle to be able to afford the drugs on which they depended to function normally.

'...I get drugs for pain...seems like we are constantly on drugs...' (P22, Married female, aged 54 years, full time trader, Pentecostal).

Other participants felt compelled to depend on drugs for relief because this was a salient belief in their community.

'...people will be asking you 'have you taken drugs...?' (P2, Single female, aged 30 years, full time trader, Pentecostal).

Active lifestyle modification is only a preventive strategy

A very few participants, who did not consider themselves to be ill with back pain, adopted exercises and pacing as a preventive rather than 'curative' strategies. They also tended not to use drugs or seek any other form of treatment for their back pain.

'...I haven't gone to the hospital because of it because...I haven't understood it as sickness...you will do exercise...which may help sometimes...I need to do these exercises for prevention...and you won't give

your back a job that is too much for it...' (P6, Married Male, aged 44 years, full time furniture maker/pastor, Pentecostal).

A few other participants attempted exercise or pacing although they did not perceive these as treatment.

'...there is something else I usually do, I might also do exercise...it reduces the pain...that is the only thing that has worked...' (P6, Married Male, aged 44 years, full time furniture maker/pastor, Pentecostal);
'...what makes it better is if I'm working and I stop for a while. If the pain is too much, I stop work for a while. Rest for some time...' (P10, Married male, aged 48 years, full time welder, Pentecostal).

One of the participants was the only one that had seen physiotherapists for his back pain. This participant had a biomedical model of CLBP and hoped to be cured of it through biomedical health care.

'...I am careful how I position myself to do my work...I also do the exercises the Physiotherapists gave me...hoping for a cure one day' (P14, Married male, aged 45 years, full time mechanic, part-time farmer, Catholic).

4. The role of spirituality

Spirituality was dominant in this population influencing not only the participants' beliefs about their CLBP but also their coping strategies and the impact of CLBP.

Spiritual beliefs represented causal explanations for back pain

Spiritual beliefs were offered as causal explanations for CLBP by a few participants, all of whom were females. They believed that CLBP was maintained by spiritual forces from close associates.

'...some are your neighbours, some are from your father's home from where you were married, then those from the community where you are currently married will be doing their own part. Your contemporaries will be doing it too...but Jehovah returns to them all their negative projections because that is not what I think of them...I am friends with God' (P13, Married female, aged 60 years, Pentecostal).

However, participants felt that those close to God should be protected from CLBP.

'...God said my body is the temple of God not the temple of sickness...' (P7, Married female, 34 years, full time trader, Pentecostal).

This made participants with CLBP question their standing with God, as they felt that serving God faithfully should have protected them from CLBP.

'...If I'm told to do this in church I do it, if I'm told to do that I do it, I have never turned my back on You God...' (P11, Widowed female, aged 67 years, full time farmer, Pentecostal).

Some participants, who did not hold these beliefs initially, began to consider them after several conventional and alternative treatments for managing their back pain had failed.

'...I have tried everything...when someone is unable to explain what is making the person...have pain...could it be spiritual?' (P5, Married female, aged 62 years, full time trader, catholic).

This perception was often associated with emotional distress which was even more pronounced in those whose pain affected their ability to engage in religious activities, commonly adopted as coping strategies.

'...to stand up and pray to God...I would have no strength to pray due to the pain...that is what hurts me the most... ...' (P18, Married female, aged 38 years, full time trader, Pentecostal).

Spirit-body dualism

Some participants had complex dualistic beliefs about their health and simultaneously viewed themselves as healthy and ill. These participants saw themselves as two radically distinct beings: their spirit, which they viewed as healthy and their bodies which was 'ill' due to CLBP. Other participants held non-dualistic beliefs and viewed themselves as either having good health or poor health due to their back pain.

Participants who had non-dualistic beliefs about their health did not appear to be influenced by spiritual belief. They included those who believed pain was a sign of ill-health and those who felt that pain was only associated with their occupational activities.

'...I am ill because of all these pains...' (P20, Married female, aged 35 years, full time civil servant-computer operator, Pentecostal); *'...now, I don't see back pain as ill health, it came about because of my job...and stops when I don't work' (P3, Married male, aged 42 years, full time Mason, Pentecostal);*

Those who believed they could still be functional regardless of their pain also did not think of themselves as being ill;

'...I am healthy because I still manage to go to work...it is only pain' (P6, Married Male, aged 44 years, full time furniture maker/pastor, Pentecostal).

Conversely, the participants who expressed spirit-body dualism were those who viewed pain as a sign of ill-health but nonetheless thought of themselves as healthy because of their spirituality.

'...by confession I am healthy...(laughs)...because...what I mean by that is that by faith I am healthy...in reality, there are some remnants of certain things that bring pain into my body...' (P15, Married male, aged 50 years, full time clergy/teacher, Pentecostal).

Pain acceptance and support through spirituality

On experiencing back pain, participants prayed first, and then sought treatment from local 'chemists' (unqualified pharmacists who dispense drugs) for medication, then herbs when these did not work. The majority then returned to prayer and coped by seeing back pain as a 'cross', thereby deciding to live with it as commanded by God until He decided to heal them.

'...Carry your cross and follow me' and that is part of the cross... I might be in severe pain yet I will still muster courage and do my work to the end...' (P15, Married male, aged 50 years, full time clergy/teacher, Pentecostal).

5. Dissatisfaction with health care

Many participants felt that mainstream health services would be successful at 'curing' their back pain.

'...if I go to the hospital, I know that they will do a very good check-up, then they give me drugs...after taking drugs for like 2, 3 days, it will be cured...' (P4, Married Male, aged 54 years, welder, Pentecostal).

However, many participants reported that this type of management was unattainable for various reasons, which made them seek alternative treatment.

Dissatisfaction with conventional health care

Participants felt that conventional health care services were inaccessible to them due to both cost and distance.

‘...there is no money that is why we have not gone to the hospital to treat it...’ (P21, Married male, aged 45 years, full time panel beater/mechanic, Catholic).

However, those who had sought conventional treatment felt that Nigerian doctors were untrustworthy due to their failure in curing their back pain.

‘...I believe Nigerian doctors are not sincere, they just want money’ (P2, Single female, aged 30 years, full time trader, Pentecostal).

They also felt that the bureaucracy in the Nigerian hospital services prevented them from accessing conventional health care.

‘... if you go to XX (hospital), before you are able to see a doctor, it is very difficult, they keep moving you from one office to another office, so...I haven’t gone...’ (P7, Married female, 34 years, full time trader, Pentecostal).

The fear of conventional health care prevented one participant from seeking help because he felt that the doctor’s diagnosis would make his condition appear to be more severe than it actually was in a bid to obtain more money from him. He felt he could not cope with the associated costs and distress.

‘...everybody is looking for money nowadays, money is important to everyone, especially in our country Nigeria, everyone wants to succeed, to achieve this and that...if only I can go to the hospital, and the doctor tells me what I can do...but there are some of them you will go to, they start asking you for money...do this and do that. Some of them would like to admit you to their hospital so that your illness appears serious, more serious than it actually is, because they are professionals and this makes people afraid...’ (P10, Married male, aged 48 years, full time welder, Pentecostal).

Dissatisfaction with available alternative health care

Participants adopted alternative types of treatment due to perceived ‘failure’ of conventional treatment.

'...I have gone to herbalists...even the computer people came to our village the other day ...they decided to check my body...still the back pain continued...' (P20, Married female, aged 35 years, full time civil servant (computer operator), Pentecostal).

The failure of these alternative therapies to 'cure' their back pain led to participants blaming the alternative practitioners, and subsequently hoping for an opportunity to access better conventional treatment.

'...you go to this chemist and take this drug, tomorrow you go to another chemist and take another drug...you still have not got an answer...I haven't had enough money to go to a good hospital...if you go to a good hospital that is not like all these rubbish hospitals, they will give you a huge bill, but you will be treated...' (P4, Married Male, aged 54 years, welder, Pentecostal).

Expectations still focused on 'cure'

Following the 'failed' conventional and alternative treatments that participants received, their expectations for their CLBP were still focused on 'cure'. This was either spiritual healing expected to come directly from God or through the people that God would send to them.

'...Only God can make it (CLBP) stop...' (P16, widowed female, aged 40 years, full time teacher, Methodist); '...Perhaps God can use you people as instruments to cure our pain...' (P15, Married male, aged 50 years, full time clergy/teacher, Pentecostal).

The latter was possibly influenced by the participants' perception of the researcher as someone who had returned from the UK (Reflective diary, 10/9/2013). Participants also **had** healing expectations based on a biomedical model. The transient effects of medication encouraged the negative perception that this was due to sub-standard drugs.

'...We don't have good drugs in Nigeria at all...all are fake' (P19, Married male, aged 33 years, full time welder, Methodist).

This belief influenced their hopes for future therapy, such as accessing 'foreign' conventional treatment and 'foreign' drugs that could 'cure' their pain.

'...I called my sister in America...there is one of my brothers...in New Zealand... he said he would come back with drugs... all these foreign drugs, if you take them once, you are sure of what you have taken...'
(P17, Married male, aged 46 years, full time welder, Catholic).

However, this response may have been influenced by participants' views of the researcher as someone who had returned from the UK (Reflective diary, 10/9/2013).

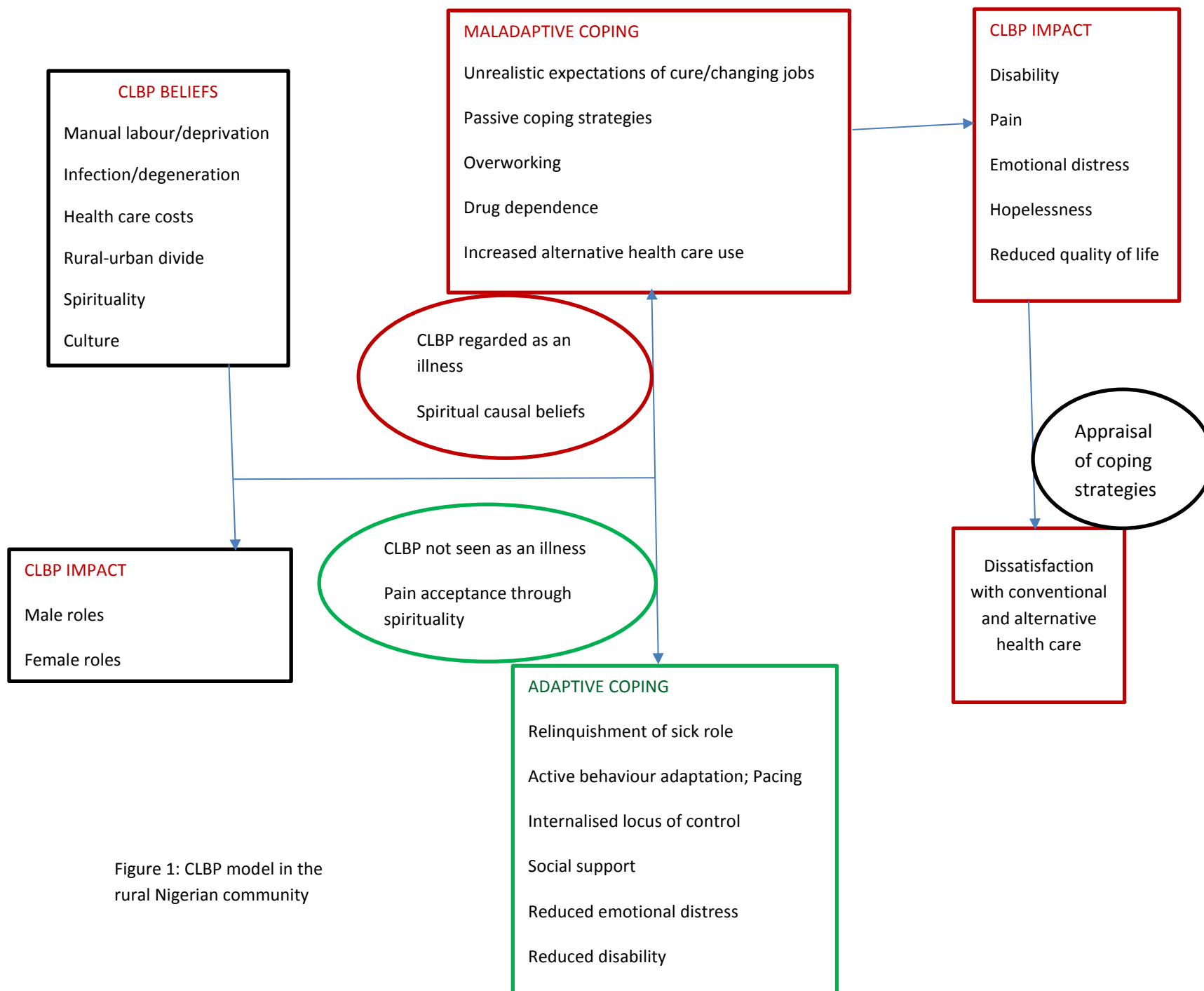


Figure 1: CLBP model in the rural Nigerian community

Figure 1 illustrates the theory formulated from the results of this study. Participants' beliefs about their CLBP such as associating back pain with manual labour and deprivation, infection or degeneration, rural-urban divide in terms socio-economic status, health care provision and cost of CLBP, and the spiritual and cultural beliefs about CLBP directly influenced the impact of back pain on male and female gender roles.

In response to the impact of CLBP on gender roles, participants adopted either adaptive or maladaptive coping strategies stimulated by specific beliefs. The few participants that adopted adaptive coping strategies were stimulated by positive beliefs such as not regarding CLBP as an illness, and accepting pain and social support through spirituality. The adaptive coping strategies included the relinquishment of the sick role which enabled active behavioural adaptation such as exercising and pacing activities. These participants had an internalized locus of control and had no expectations of being cured of their CLBP as they did not regard it as an illness. They sought and received adequate social support. They were not emotionally distressed and had less disability.

On the other hand, a majority of the participants adopted maladaptive coping strategies stimulated by their view of CLBP as an illness, or having a spiritual causal or a biomechanical understanding of CLBP, associating their back pain with their occupation. The maladaptive coping strategies were facilitated by the participants' unrealistic expectations of getting their CLBP cured or changing their occupation. These led to drug dependence and increased alternative health care use reflecting an externalization of locus of control. As these passive coping strategies were not effective, participants attempted to counteract their pain related disability by increasing their activity levels- an attempt to 'fight back against pain'. These maladaptive coping strategies led to increased disability, pain, emotional distress, hopelessness and reduced quality of life. Following the impact of CLBP on their lives, participants assessed the effectiveness of their coping strategies which led to their dissatisfaction with both conventional and alternative health care in Nigeria, further increasing psychological distress and helplessness (Figure 1).

Discussion

This study found disparate beliefs about CLBP, wide-ranging impacts, multiple coping strategies and dissatisfaction with prevailing healthcare suggesting a complex mixture of socio-cultural and psychological factors in this community.

Spirituality was highly relevant to most of the participants as evidenced by a strong belief in the 'divine healing' of physical illness. A spiritual explanation of illness is supported within African culture with the attribution of misfortune to 'closely related enemies'⁴⁹ or 'spiritual forces'⁵⁰ shaping the collective understanding of health and illness⁵¹⁻⁵³, with illness often interpreted as a sign of discord between man and God²⁷. These attributions may negatively influence emotions which can have an adverse effect on clinical outcomes⁵⁴. As the impact of CLBP is shaped by cultural values²³, the impact of CLBP has similarly been shown to be influenced by spirituality in South African patients, reflected in their expectation of a pain-free after life²⁷. This spiritual dimension may be linked to the subtheme, 'a life of living death', as some participants hoped God would end their life fostering potential suicidal ideation. However, high degrees of religiosity may decrease suicide risk, as suicide is considered sinful⁵⁵. The apparent link between a 'life of living death' and 'tiredness' plus the lack of an Igbo word for depression illustrate how language/culture may influence somatization, emotions and catastrophizing. The expression of psychological states using bodily cues has been reported to reinforce physical symptoms⁵⁶.

Spirituality may however play adaptive role in influencing spirit-body dualism. Spiritual health was reflected in the belief that faith made all things possible, therefore if participants believed that they were healthy, this might facilitate a relinquishing of the sick role, leading to more active self-management with an internal locus of control⁵⁷. In contrast, a dualistic view of the self has been reported to have little rehabilitative purpose in other studies where patients viewed their painful bodies as an external threatening object distinct from a valued sense of self^{23,58}. Spirituality leading to pain acceptance may be more adaptive in CLBP than spiritual healing expectations which engender frustrations when the expected healing does not occur.

Corroborating this study, previous studies have reported that culturally specific expectations and gender roles such as 'duty to family' and lack of understanding from family/community can reinforce stress in people with

CLBP ²⁶. Reduced family support was purported to result from the compromised ability to perform expected roles ²¹⁻²⁴ resulting in anger and guilt ⁵⁹. In this study, unsupportive extended family members were seen as 'enemies', especially when they seemed to be mocking participants. This might be linked to the concept of 'enmity' in Africa ⁶⁰ because constructions of the self in many African settings emphasize the risks and dangers inherent in interdependence ⁴⁹. In developed countries, a few studies have reported solidarity between spouses and suggested that this has a positive and mediating role in CLBP ^{61,62} described as 'we-ness' when pain was a shared experience ²³.

'Escaping from the self' has been described in other studies where patients with CLBP sometimes exceeded their functional capacities in an attempt to fight back against pain ⁶³⁻⁶⁷. 'Escaping from others' was reflected in regulating the 'assault on the self' ²² described as a traumatizing challenge to personal identity ^{21,67} aimed at minimizing exposure to situations which revealed personal limitations. This might exacerbate social isolation and depression ^{22,23}. Dismissal of pain experience by participants' close companions or colleagues because participants looked 'healthy', has been reported as malingering in developed countries ⁶⁸⁻⁷¹ possibly linked to existing social welfare in those countries. Whereas most participants in this study adopted strategies for pain reduction, in other studies, patients have ignored or denied their pain, continued with normal activities and not sought therapy ²⁵. Medication use is often adopted reluctantly by patients in developed countries ⁶⁸ due to concerns about dependency, side effects and impact on the 'self' ⁷². In contrast, participants in this study requested a drug-based cure, which may be associated with the acute health care model predominant in Africa ⁷³ highlighting the need to shift focus to more effective approaches such as active self-management ^{74,75}. Notably, self-management practices such as exercise, postural awareness and pacing were only adopted as preventive rather than curative strategies by the few participants who felt they were not actually ill.

The reported influence of the Nigerian tropical climate implied in the seasonal presentation of CLBP suggests the cyclical nature of CLBP with implications for epidemiological studies of CLBP in rural Nigeria. The cyclical experience of CLBP increases distress when interpreted as unpredictable ^{21,22,24}. The negative perception of the Nigerian rural-urban disparity ⁹, similar to findings in rural Western Australia ⁷⁶ was associated with poor Nigerian rural health services ^{16,17,19,20}. This may compound the impact of CLBP when combined with an acute biomedically

oriented urban health care services ⁷³. The biomedical model can be associated with less empathic care due to a lack of acknowledgement of psychosocial issues ⁷⁷ and can lead to unrealistic expectations of 'cure' ⁷⁸. However, adverse clinical outcomes are also reported when patients feel that their CLBP will remain persistent ⁷⁹. Discrepancies between patients' expectations of a 'cure' and the received treatment usually result in dissatisfaction ⁸⁰. When a 'cure' was not achieved, participants in this study sought alternative services perceived to be cheaper and more accessible. Evidence suggests that patients' choice of practitioners is unrelated to health professionals' formal qualifications, therapeutic approaches, treatment practices or the scientific basis of therapeutic practices ⁸¹. Research has suggested that patients from developed countries who accepted an active involvement in CLBP management were more satisfied with treatment and less likely to demand a cure ⁸⁰.

The distress experienced by the participants was due to the persistence of symptoms despite multiple treatments but often occurred due to the lack of a specific diagnosis in Western patients ²³. This might be because the participants in this study received specific 'diagnoses' which might have reinforced their search for 'cure' whereas western patients often received non-specific diagnoses leading to their perception of treatment as unsatisfactory ^{21,23}. Participants in this study perceived doctors as untrustworthy, alternative practitioners as 'incompetent' and Nigerian drugs as 'fake' since they failed to 'cure' them of their back pain. There was little stigma associated with the management of CLBP possibly due to the predominant biomedical management of CLBP. Inadequate acknowledgement of psychosocial factors in the biopsychosocial management of CLBP can be associated with patients feeling rejected if health professionals imply their pain is somehow not real or 'in their head' ²¹⁻²⁴.

The biomechanical model of CLBP demonstrated in this study is common across most countries. This understanding was often expressed as primarily a mechanical injury ^{25,69,70,82} or associated with habitual work-related tasks ⁸³; sometimes associated with poor knowledge of correct posture/lifting techniques ²⁶. Biomechanical understanding of CLBP has been shown to elevate fear-avoidance beliefs, anxiety, pain intensity, pain catastrophizing, hypervigilance, maladaptive illness perceptions and disability ⁸⁴⁻⁸⁹. Moreover, there is limited evidence linking biomechanical factors to the adverse impact of CLBP ⁹⁰. Associating CLBP with ageing led to catastrophic thinking, as reported in previous studies ^{25-27,58,91}, which was more pronounced in the younger

participants. Perceptions of premature ageing are often reinforced by impaired mobility ⁷⁰ leading to despair because of the expectation that health deteriorates with ageing ⁶⁵. This understanding of CLBP was also linked to the negative perception of rural-urban disparity in Nigeria ⁹.

Methodological considerations/reflexivity

Qualitative research aims to understand human experience and is underpinned by the assumption that reality is subjective and socially constructed. However, this reality can only be ascertained by a qualitative researcher's immersion in the phenomenon of interest.

Strengths and Limitation

Strengths of this research was the rigorous systematic data collection and analysis, detailed description of the methods and the orientation of the researcher, reflexivity and respondent validation, as well as the findings being substantiated by a multidisciplinary team. The limitation of this study is that participants are not representative of multicultural Nigeria or Africa therefore more studies should explore meaning in other African contexts.

Conclusion

This is the first qualitative study of people living with CLBP in a rural African community and the burden it has uncovered suggests that much more research is warranted in this area. Participants' beliefs resulted into some maladaptive coping strategies that influenced the adverse impact of CLBP in this community.

Practice implications

Patient-centred management of CLBP in rural Nigeria should target unhelpful beliefs and practices while emphasizing behavioural modification such as exercise and functional activity modification. The usefulness of incorporating the identified positive aspects of spirituality should be explored in such interventions as evidence points to the centrality of spirituality in the cultural identity of Africans ^{53,92,93}.

Declaration of interest

The authors report no conflicts of interest.

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